



City of Big Bear Lake

Building and Safety

Design Loads and Special Considerations

All buildings and structures must be designed by a licensed civil or structural engineer or architect.

Soils Investigation Requirements

A soils investigation is required for:

1. All new commercial and industrial buildings.
2. An addition to a commercial or industrial building where there is no previous soils report on file with the city.
3. All freestanding retaining walls over 4 feet in height (measured from the bottom of the footing to the top of the wall), any surcharged retaining wall or retaining walls supporting a soil slope greater than 1(V):2(H).

A preliminary soils report is required for a new single-family residence being constructed on property that is subject to the City of Big Bear Lake Slope Density Ordinance or is in an area subject to high liquefaction. If the recommendations contained within the preliminary soils report for mitigating structural defects are not implemented, a soils investigation will be required.

A preliminary soils report is not required for:

1. A new single-family residence, residential room addition, exterior deck or non-habitable accessory structure constructed on property with the foundation design following the same design recommendations for a previously approved soils report for the primary structure or building on that property.
2. A new single-family residence, residential room addition, exterior deck or non-habitable accessory structure where the allowable foundation and lateral pressure comply with the Category 5 Material Classification soil properties listed in CBC Table 1804.2 and not subject to high liquefaction or the city's Slope Density Ordinance.

Wind

Design wind pressure is 85 miles per hour, Exposure C.

Seismic

Sites without a preliminary soils report (Residential construction only) –
Site Classification D with $S_s = 179\%g$ and $S_1 = 72\%g$

Sites with a soils investigation –
Site classification as proposed in the soils investigation.

Snow Loads

Roof (p_f): 100 pounds per square foot

Ground (p_g) : 85 pounds per square foot (for use in determining snow drift
on lower roofs *only*)

Site data is required to justify Exposure Factor, C_e , as cited in ASCE 7,
Table 7-2.

Frost Depth

18 inches.

**Please contact the City of Big Bear Lake Building and Safety Division for
any questions regarding required design criteria.**

City of Big Bear Lake Civic Center and Performing Arts Center
Building and Safety
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